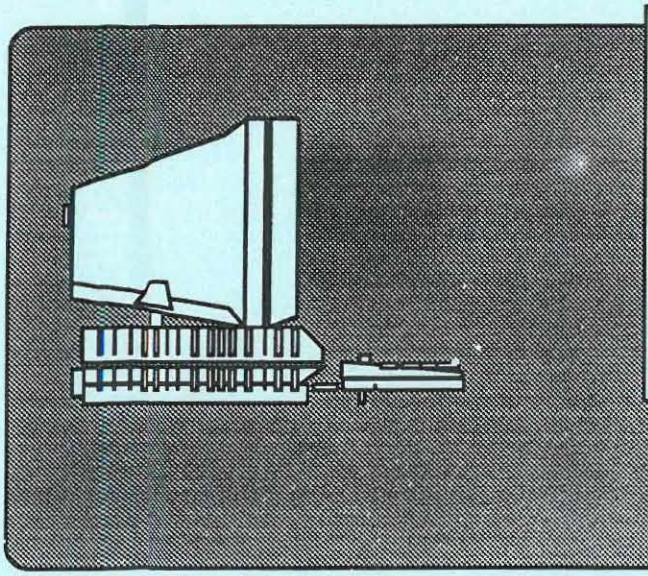
1990

Center for Computer Science Courses

Nova Southeastern University



NOVA UNIVERSITY Center For Computer Science

MASTER OF SCIENCE IN COMPUTER SCIENCE

COURSES FOR THE WINTER TERM
JANUARY 2, 1990 - MARCH 22, 1990

Course Number	Course Title	Day/Time	Professor	Room
CIS 632	Compiler Implementation	W 6:00-10:00	C. Tondo	S-3
CIS 641	Digital Computer Design	W 6:00-10:00	R. Szabo	S-1
CIS 650	Network Design and Analysis	T 6:00-10:00	E. Chao	S-1
CIS 674	VLSI Design	M 6:00-10:00	R. Barrett	S-1
CIS 680	Software Engineering	TH 6:00-10:00	E. Chao	S-1
CIS 681	Interactive Computer Graphics	T 6:00-10:00	A.S. Krantz	S-32

COURSE DESCRIPTIONS

CIS 632 COMPILER IMPLEMENTATION - This course expands on the theory and application presented in CIS 630. Focus is on compiler construction techniques. The following topics are covered: optimization techniques, code generation, and the interaction between language design and implementation considerations. A project in the area of compiler construction is required in the course.

CIS 641 DIGITAL COMPUTER DESIGN - Principles and techniques of digital computer design are covered. Included are integrated circuits, logic design, LSI and MSI design, sequential circuit analysis, processor logic design, arithmetic unit, memory systems, input-output structures, and microprogramming.

CIS 650 NETWORK DESIGN AND ANALYSIS - Analysis of distributed network environments with emphasis on architectural designs and implementations. Topics covered include application architectures, user architectures, services and protocols of the upper four OSI layers, and management aspects and techniques of OSI as applied to the distributed information system.

CIS 674 VLSI DESIGN - Silicon, gallium-arsenide, and superconducting devices are covered. Also covered are system design, design automation and CAD tools, and system architecture. Symbolic CMOS layout projects using MAGIC, and circuit simulation using SPICE are conducted by the student.

CIS 680 SOFTWARE ENGINEERING - Offers a thorough analysis of the problems related to the design, development and implementation of software projects. First, the fundamentals of software project management are presented, followed by a discussion of the techniques of software development. A comprehensive, modern approach to structured programming, program modularization and program correctness is offered. Software verification and validation, software security and software protection will also be analyzed in detail.

CIS 681 INTERACTIVE COMPUTER GRAPHICS - The principles of interactive computer graphics are presented. Emphasis will be placed on mastering the concepts of two-dimensional graphics including the basic transformations (scale, translate, rotate), perspective, hidden-line removal and hardware support devices. The two-dimensional concepts will be extended to include three-dimensional computer graphics including smoothing algorithms, animation and a variety of related topics.

PHONE - In Broward, 475-7563
or Toll Free, 1-800-541-NOVA,
ext. 7563 to request registration

Room SB - Classes will be held at Nova Universiity Main Campus in the Joe Sonken Building.

NOTE: Monday, January 15, 1990 HOLIDAY University is closed.